

Title (en)
HEIGHT CONTROL VALVE

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EP 0207393 A3 19870527 (DE)

Application
EP 86108405 A 19860620

Priority
• DE 3523908 A 19850704
• DE 3531685 A 19850905

Abstract (en)
[origin: EP0207393A2] 1. Hydraulic level control valve for motor vehicle suspensions, having a pump channel, tank channel and accumulator channel for compensating static level changes of the body with respect to the vehicle axle by means of a hydraulic accumulator and an oil stream delivered by a pump to a tank or to the accumulator, having the following features : 1.1 A rotary valve (4) having a circular cross-section can be rotated in the rotary valve bore (3) of a rotary valve housing (1) ; 1.2 Rotary valve (4) on the one hand and housing (1) on the other hand are connected, on the one hand, to the body and, on the other hand, to the vehicle axle in such a way that the relative rotational position of the rotary valve in the housing is determined by the relative level of body and vehicle axle ; 1.3 The rotary valve (4) has over at least part of its length a recess (11) of its circular cross-section, which recess is bounded by two circumferential lines on the surface and, together with the rotary valve bore (3), forms a distributor space (12) occupying the latter in the longitudinal direction over a part cross-section ; 1.4 The pump channel (6) opens into the rotary valve bore and communicates in all rotational positions of the rotary valve with the distributor space (12) of the rotary valve bore (3) ; 1.5 The tank channel (8) branches off radially from the rotary valve bore and connects the distributor space (12) in a certain angular range of rotary valve positions to the essentially unpressurized tank of the hydraulic system of the motor vehicle ; 1.6 The accumulator channel (10) branches off radially from the rotary valve bore (3) and, depending on the rotational position of the rotary valve (4) connects the distributor space (12) from time to time with the motor vehicle accumulator determining the level of the body ; 1.7 A ball valve (13) having a ball seat (15) is arranged concentrically in the accumulator channel (19) and is spring-loaded (spring 14) counter to the outlet arrangement of the accumulator channel ; 1.8 A tappet (18) is arranged in the accumulator channel (10) so as to be movable in the longitudinal direction of the latter, has a smaller cross-section than the accumulator channel (10) and forms the mechanical connection between the rotary valve or its recess (11) and the ball (13) in such a way that the ball is lifted from its seat (15) as soon as essentially the full circular cross-section of the rotary valve (4) is present in front of the mouth of the accumulator channel (10), characterized in that, in the working range of the valve, the accumulator channel (10) exhibits a constant hydraulic connection (33, 34), independent of the rotational position of the rotary valve (4), to the pump channel (6).

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IPC 8 full level
B60G 17/04 (2006.01); **B60G 17/056** (2006.01)

CPC (source: EP)
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Citation (search report)
• [AD] DE 2932298 A1 19810226 - BARMAG BARMER MASCHF
• [A] DE 2453787 A1 19760520 - AUDI AG
• [A] US 3825243 A 19740723 - UNTERBORN R, et al

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